

The NWS Operations Proving Ground: Evaluating and Validating Forecast Science Improvements and Decision Support Services

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Abstract

The National Weather Service (NWS) is developing an Operations Proving Ground (OPG) in Kansas City, MO to serve as a framework for advancing two important components of the Weather-Ready Nation (WRN) initiative: building capacity for superior impact-based decision support services (IDSS), and validating the operational readiness of new forecast science capabilities, which emerge from the field, or from NOAA-affiliated labs and test beds. This presentation will provide an overview of the OPG vision and concept of operations, highlight a few key Year 1 accomplishments, and discuss plans for supporting service enhancement initiatives and operational readiness evaluations. As an example of the service-enhancement role, the OPG hosts DSS Deployment Boot Camp, a weeklong training experience for NWS Emergency Response Specialists (ERS), which culminates in a full-day incident simulation exercise. ERS personnel must meet specialized requirements to qualify for rapid deployment to provide on-scene decision support at disaster locations. In the DSS Boot Camp, NWS forecasters work alongside emergency management partners, honing risk communication skills in a safe, but realistic, environment to gain valuable experience that will enable seasoned, effective DSS, and seamless integration into an Incident Command System (ICS) structure.

The OPG also hosted and facilitated training for FEMA Watch Officers February 26-28. This course, funded completely by FEMA, is a 3-day in-residence workshop, designed to address a priority need for FEMA Regional Watch personnel to fulfill professional qualification standards (PQS) in understanding basic meteorology and hydrology. FEMA Watch Officers are required to understand and interpret weather information in the context of coordinating response efforts since weather-related incidents account for nearly all federally declared disasters, and is a critical component throughout the disaster life cycle. The pilot workshop included participants from each of the ten FEMA regions, as well as FEMA HQ. In addition to meeting an operational need for FEMA, it serves to strengthen the NWS-FEMA partnership, enhancing our capabilities to integrate into the National Response Framework, a critical Weather Ready Nation objective. Initial reaction has been very positive, and plans are already underway to conduct a second workshop in the autumn.

The OPG will also facilitate the testing of advancements in science, new forecast algorithms, and emerging technologies for operational implementation. Applications considered for evaluation will be required to demonstrate substantive improvement to the warning and forecast process, collaborative decision making, risk communication, and/or provision of impact-based decision support services; while not adversely impacting workload, or existing systems and practices.